

Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-18 (Cancelled).

19 (Currently Amended): A rechargeable lithium ion battery, comprising:

(a) a positive electrode comprising:

 a collecting electrode; and

 an active material layer formed on the collecting electrode,

 the active material layer containing particles of a positive electrode active material within a prescribed particle size range,

 the active material layer having a layer thickness within a prescribed layer thickness range,

 the active material layer comprising

 a first active material layer having a first porosity within a first porosity range, and

 a second active material layer having a second porosity within a second porosity range higher than the first porosity range, wherein the first active material layer and the second active material layer contain particles of substantially the same particle size;

(b) a negative electrode; and

(c) a non-aqueous electrolytic solution.

20 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 19, wherein the first porosity range is apart from the second porosity range.

21-22 (Cancelled)

23 (Currently amended): The rechargeable lithium ion battery as claimed in claim ~~[[22]]~~ 19, wherein the first active material layer is closer to the collecting electrode than the second active material layer, ~~and the first porosity range is lower than the second porosity range.~~

24-25 (Cancelled)

26 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 19, wherein the active material layer has an average porosity thereof adjusted within a prescribed average porosity range.

27 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 26, wherein the average porosity range is set within a range of 50% or more.

28 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 27, wherein the average porosity range is set within a range of 50% to 60%.

29 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 27, wherein the particle size range is set within a range of 5 μm or less in terms of an average particle diameter.

30 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 29, wherein the layer thickness range is set within a range of 20 μm to 80 μm .

31 (Currently Amended): The rechargeable lithium ion battery as claimed in claim 30, wherein the layer thickness range is set within a range of 20 ~~[[-]]~~ μm to 30 μm .

32 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 30, wherein the active material layer comprises:

the first active material layer formed with a first thickness on the collecting electrode; and
the second active material layer formed with a second thickness on the first active material layer,

the first and second thicknesses are each set within a range of 20 μm to 30 μm ,
the first active material layer has the first porosity within a range of 30% to 50%, and
the second active material layer has the second porosity thereof within a range of 50% to 60%.

33 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 19, wherein the positive electrode active material comprises lithium manganese oxide.

34 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 19, wherein the non-aqueous electrolytic solution contains a concentration of electrolyte within a range of 1.0 mol/l to 3.0 mol/l.

35 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 34, wherein the concentration of electrolyte is set within a range of 1.5 mol/l to 2.5 mol/l.

36 (Previously Presented): The rechargeable lithium ion battery as claimed in claim 19, wherein the non-aqueous electrolytic solution contains an electrolyte comprising one of LiPF_6 and LiBF_4 .

37 (Currently Amended): The rechargeable lithium ion battery as claimed in claim [[25]] 19, wherein the first and second active material layers have a thickness thereof within a range of 20 μm to 30 μm .

38 (Cancelled)

39 (Currently Amended): A rechargeable lithium ion battery which is capable of being used as an energy source for a vehicle, comprising:

(a) a positive electrode comprising:

a collecting electrode; and

an active material layer ~~which is~~ formed on the collecting electrode, ~~contains the~~
active material containing a positive electrode active material, wherein

a thickness of the active material layer is at a range of 20 ~~[[--]]~~ μm to 80 μm;

a particle diameter of the positive electrode active material is 5 μm or less; and

a porosity of the active material layer is 50% or more,

wherein the active material layer comprises of a plurality of active material layers having different porosities, and the porosity of the active material layer closer to the collecting electrode is lower than an active material layer ~~further~~ remote from the collecting electrode;

(b) a negative electrode; and

(c) a non-aqueous electrolytic solution.

40 (Currently Amended): A rechargeable lithium ion battery which is capable of being used as an energy source for a vehicle, comprising:

(a) a positive electrode comprising:

a collecting electrode; and

an active material layer containing a positive electrode active material, which includes a first active material layer formed on the collecting electrode and a second active material layer formed on the first active material layer, wherein

each of the first and second active material layers ~~each have~~ has a thickness within a range of 20 μm to 30 μm,

a porosity of the first active material layer is 30% or more and less than 50%,

a porosity of the second active material layer is within a range of 50% to 60%,
and

a particle diameter of the positive electrode active material is 5 μm or less;

(b) a negative electrode; and

(c) a non-aqueous electrolytic solution.

41 (Cancelled)

42 (Currently Amended): A rechargeable lithium ion battery comprising:

(a) a positive electrode comprising:

a collecting electrode; and

an active material layer formed on the collecting electrode,

the active material layer containing particles of a positive electrode active material within a prescribed particle size range,

the active material layer having a layer thickness within a prescribed layer thickness range,

the active material layer having a local porosity thereof changed along a direction of the layer thickness,

wherein the active material layer comprises:

a first active material layer formed with a first porosity; and

a second active material layer formed with a second porosity changed from the first porosity, wherein

the first active material layer is closer to the collecting electrode than the second active material layer, and the first porosity is lower than the second porosity; and

wherein the first active material layer and the second active material layer contain particles of substantially the same particle size;

- (b) a negative electrode; and
- (c) a non-aqueous electrolytic solution.

43-46 (Cancelled)

47 (Currently Amended): A rechargeable lithium ion battery comprising:

- (a) a positive electrode comprising:

- a collecting electrode; and

- an active material layer formed on the collecting electrode,

- the active material layer containing particles of a positive electrode active

- material ~~within a prescribed particle size range~~ having an average particle diameter of 5 μm or less,

- the active material having a layer thickness ~~within a prescribed layer thickness range~~ of 40 μm to 60 μm ,

- the active material layer having a local porosity ~~thereof~~ changed along a direction of the layer thickness, wherein

- the active material layer has an average porosity ~~thereof adjusted within a~~ prescribed average porosity range, wherein

- ~~the prescribed average porosity range is set within a range of 50% or more, and~~ wherein

- ~~the prescribed particle size range is set within a range of 5 μm or less in terms of~~ an average particle diameter, wherein

~~the prescribed layer thickness range is set within a range of 20 μ m to 80 μ m,~~

wherein the active material layer comprises:

a first active material layer formed with a first thickness on the collecting electrode; and

a second active material layer formed with a second thickness on the first active material layer,

each of the first and second thicknesses are ~~each~~ set within a range of 20 μ m to 30 μ m, and

wherein the first active material layer has a porosity ~~thereof within a range~~ of 30% to 50%, and

the second active material layer has a porosity ~~thereof within~~ ~~a range~~ of 50% to 60%;

(b) a negative electrode; and

(c) a non-aqueous electrolytic solution.